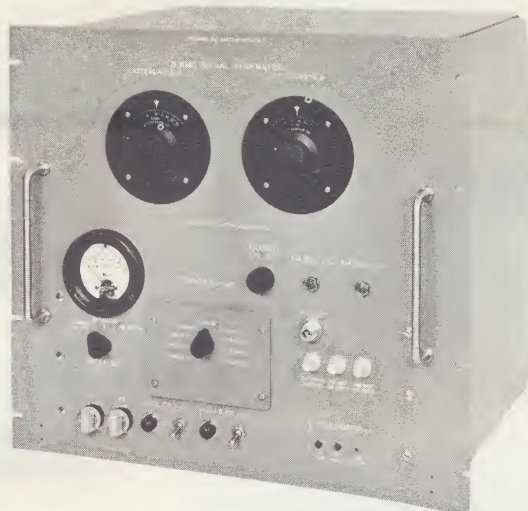


REMANCO

MICROWAVE TELEMETRY TEST SET SG 500



Sold & Serviced By:

MANUFACTURERS MARKETING, INC.

32 Commerce Street

Springfield, New Jersey 07081

Code 201-376-5148

DESCRIPTION

The Remanco Model SG 500 Microwave Telemetry Test Set is specifically designed to evaluate and test modern diversity receiving instrumentation for telemetry. The unit provides the selection of nine output frequencies around 5 KMC which are extremely stable. The SG 500 is capable of being both frequency modulated and amplitude modulated, and has a calibrated 120 db attenuator.

OPERATIONAL CHARACTERISTICS

The SG 500 test may be used for either connected or disconnected tests of the Telemetry Receiving System. The center and band limit frequencies of three 1.5 mc wide channels can be tested. Wideband frequency modulation can be introduced by means of an external oscillator or suitable sub carrier modulator to test the receiver. Amplitude modulation at nutation rates can be applied to check the angle processing circuitry used in the tracking mode.

Coupled with the built-in attenuator, these capabilities provide the means for a complete system test, including antenna tracking, for all signal levels. There is sufficient attenuation in the test set to test the parametric front end of the receiver.

DESIGN CHARACTERISTICS

The stability of the instrument is derived from a crystal controlled oscillator with nine selectable crystals, whose frequencies are in the 11-12 megacycle range. An armstrong phase modulation scheme is employed at this point which provides the FM capability. The signal is then multiplied to the 100 mc region using standard techniques and then further multiplied to the 5 KMC region using Remanco type VM varactor multipliers. The signal at the output frequency is processed by a ferrite modulator which provides the amplitude modulation capability. Two wave guides-beyond-cutoff attenuators furnish 120 db of accurate attenuation. The SG 500 is designed to conform to MIL-T-21200.

OPTIONS AND MODIFICATIONS

Remanco can provide the test set with output frequencies in any range from 1 gc to 6 gc. Typical power outputs can range from 10-20 mw depending on the frequency.

Pulse modulation capability can be added to the test set with the incorporation of a Remanco pulsadyne system. This system operates at a frequency towards the low end of the multiplier chain and produces pulses with excellent on to off ratios.

REMANCO INCORPORATED / 1805 COLORADO / SANTA MONICA, CALIFORNIA

TELEPHONE GL. 1-1341 • TWX 213 879 0006

SPECIFICATIONS

Specifications

1. Frequency Range
4996.25 – 5003.75 mc
2. Calibration
Nine fixed selectable frequencies
calibration accuracy 0.001%.
3. Stability
2 parts in 10^6
4. Output Range
+ 6 to -120 dbm
5. Output Accuracy
 ± 1 db to -60 dbm
 ± 2 db from -60 to -120 dbm
6. Internal Impedance
50 ohm
Type N connector

External Modulation

7. FM Modulation
8. F.M. Deviation
0 – 400 KC
9. F.M. Rate
5 Kc – 180 Kc
10. AM Modulation
0 – 50%, 20 – 100 cps

General

Power Requirements

approximately 300 watts 115/230 volts
50/60 cps.

Dimensions

17" H x 19" W x 18" D

Data subject to change without notice

5/16/63